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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,052	07/07/2003	Toshikazu Hori	SS-722-14	8055

7590 03/08/2007  
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EXAMINER
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SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/615,052	Applicant(s) HORI ET AL.	
	Examiner Gevell Selby	Art Unit 2622	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3 and 7 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see the amendment, filed 12/18/06, with respect to claims 2, 3, and 6 have been fully considered and are persuasive. The 35 U.S.C. 102 and 103 rejections of claims 2, 3, and 6 have been withdrawn.

2. Applicant's arguments filed 12/18/06 have been fully considered but they are not persuasive in regard to claim 6. The applicant states the limitations of claim 4 were incorporated into claim 6, and states that each and every limitation was not shown in the reference. The examiner respectfully disagrees.

#### **Examiner's Reply:**

3. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

4. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**6. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Shiomi et al., US 6,791,615.**

In regard to claim 6, Shiomi et al., US 6,791,615, discloses a method for improving the operation of a multitap imager, comprising the steps of:

collection of pixel information for m a plurality of taps (see figure 2, elements 94 and 95) in a multitap imager (see figure 2) connected to respective channels (see figure 3, element s CH1 and CH2) that include samplers/amplifiers (see figure 3, elements 4 and 5) and digitizers (see figure 3, elements 6 and 7) (see column 5, lines 15-40);

comparing the difference between pixel values in adjacent pixels from respective said taps (see column 6, lines 31-48 and column 7, lines 38-45: the unbalance amount calculation circuit compares the difference between the channels to make the offset values);

adjusting a channel associated with one of said taps to minimize a sum of any such difference between pixel values in adjacent pixels from respective said taps (see column 6, line 50 to column 7, lines 60: the channels are adjust by the offset singles OF1 and OF2 to match the outputs levels with each other);

wherein, the adjusting is such that the DC-level of one channel is changed relative to the gain of another channel (see column 13, lines 45-50: Output level or DC levels of the channels are adjusted according the to gain correction data GN1 and GN2 as well as the offset correction data) by optically forcing said imager to output its black levels (see

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column 14 lines 13-60: the black levels of the imager outputted in step 158 are used to determine gain calculations in steps 166 or 169).

*Allowable Subject Matter*

7. Claims 2, 3, and 7 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

In regard to claim 2, the prior art does not disclose a multitap camera with the combination of limitations specified in the claimed invention, specifically the limitations of:

a channel balancer for comparing adjacent pixels represented in each digitizing channel and for summing differences in levels over many frames, and where an accumulated difference is used as a feedback signal to drive such summing to a minimum;

wherein, the adjustment is such that said black level is set by temporarily blacking out the imager, and said feedback signal is used to find a balance of levels between the channels, as stated in claim 2.

In regard to claims 3 and 7, the prior art does not disclose a multitap camera or method for calibrating a the camera with the combination of limitations specified in the claimed invention, specifically the limitations of:

a frame grabber connected to receive separate video data from each of said digitizing channels and able to pixel shift each digitizing channel relative to the others;  
and

a pattern generator for used once during a calibration to generate a test pattern in the digitizing channels that demonstrates to a frame grabber how exactly to restitch the various lance of zones of a whole image frame back together by pixel shifting, as stated in claims 3 and 7.

### *Conclusion*

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs



**VIVEK SRIVASTAVA**  
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